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ABSTRACT

This paper addresses the issue of whether second language (L2) learners can reset parameters, by testing English speakers learning Spanish on their ability to reset the subjacency and bounding node parameters. The bounding nodes are IP and NP in English and CP and NP in Spanish. Eight American graduate students, highly proficient in the Spanish language, were given a grammatical judgement task in Spanish that included wh-island and complex NP structures. Non-native speaking subjects were average age 24 years and had an average 11.4 years of Spanish study; they passed a pretest that evaluated language structure knowledge. A control group of 7 students from Spain was also tested. Results showed that subjects rejected most of the wh-structures, suggesting that they are still transferring the bounding nodes from English. However, subjects rejected the complex NP structures at a higher rate suggesting that they are beginning to reset the bounding node parameter. Age did not appear to make a difference as all responses were within Universal Grammar (UG) predictions even when they were wrong. Therefore, it is concluded that UG was still operating. Sentences used in the study are appended. (Contains 12 references.) (Author/NAV)

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RESETTING BOUNDING NODES IN ACQUIRING SPANISH

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Abstract: This paper addresses the issue of whether L2 learners can reset parameters, by testing English speakers learning Spanish on their ability to reset the bounding node parameter. The bounding nodes are : IP and NP in English, CP and NP in Spanish. Subjects were given a grammaticality judgment task in Spanish that included wh-island and complex NP structures. Results show that they rejected most of the wh-structures (62.5%). This suggests that they are still transferring the bounding nodes from English. However, they rejected the complex NP structures at a higher rate (96%) suggesting that they are beginning to reset the bounding node parameter.

1. Introduction

This paper presents an experiment that tested the parametric difference between English and Spanish regarding bounding nodes. Bounding nodes in Spanish are CP and NP (Torrego 1984). In English, in contrast, IP and NP are the bounding nodes (Chomsky 1973). The purpose of the experiment was to test whether L2 Spanish learners whose L1 is English are able to reset this parameter. Results show that English speakers have not reset the parameter, they are still transferring the bounding nodes value from English. The resetting of this parameter is difficult due to the fact that these structures are uncommon in Spanish, resulting in lack of enough positive evidence.

The paper describes the parametric difference between English and Spanish in more detail in section 2, which also discusses previous studies of this difference in second language acquisition. Section 3 describes the experiment, section 4 presents the results and section 5 discusses the results and the problems that were encountered in the experiment.

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2. The Parametric Difference Being Tested
Subjacency and Bounding Nodes in Spanish and English

According to the linguistic theory of Universal Grammar first elaborated in Chomsky 1981, all languages consist of principles and parameters. Principles are the invariant linguistic features that all languages have in common. However, linked to these principles is a limited set of variables, and languages may differ in the values they choose; these variant values are called parameters.

Languages which have syntactic movement are subject to the subjacency constrain, which prevents a constituent from crossing more than one bounding node in a single step (Chomsky 1973: 271):

> 'No rule can move an item from position Y to position X in the structure
>
> $\ldots[_{\beta}\ldots[_{\alpha}\ldots Y\ldots]\ldots]\ldots X\ldots$
>
> where $Y \neq \alpha$ and α, β are cyclic categories, unless some constant term of the structural description of the rule holds of a phrase in β that is subjacent to X.'

However, they may differ in terms of what the bounding nodes are. while the bounding nodes in English are IP and NP (Chomsky 1973), in Spanish, they are CP and NP (Torrego 1984: 114):

> The configurations presented are the possible derivations for long Wh Movement allowed by Subjacency in Spanish:
>
> a. s' [[wh-phrase$_i$] s [. . . s' [e$_i$ s [. . . s' [e$_i$ s [. . . e$_i$ . . .]]]]]]
>
> b. s' [[wh-phrase$_i$] s [. . . s' [e$_i$ s [. . . s' [e$_i$ s [. . . e$_i$ . .]]]]]]

In English (1a) and (1b) are grammatical because the 'wh-element' only crosses one bounding node. Although in (1b) it might seem that the 'wh-element' crosses two IPs, this is not the case. In the first step it crosses the lower IP and moves to [Spec, CP] leaving a trace*t* and, from here, it moves to the second [Spec, CP], so that it only crosses one bounding node in each movement.

(1) a. [$_{CP}$What$_j$ did [$_{IP}$ the boy throw t_j]]?
b. [$_{CP}$ What$_j$ did [$_{IP}$ the boy [$_{CP}$ t_j that [$_{IP}$ lives next door]] throw t_j]]?

(2a) and (2b) are ungrammatical because the 'wh-element' crosses two bounding nodes at a time. In (2a) it cannot move to the first CP because this position is already filled. In (2b) the wh-phrase moves in two steps. In the first one it crosses only one bounding node (the lower IP) and , in the second step, it crosses two bounding nodes (NP and the IP above it).

(2) a. *[$_{CP}$ What book$_j$ don't [$_{IP}$ you know [$_{CP}$ if [$_{IP}$ Pepe has read t_j]]]?
b. * [$_{CP}$ What$_j$ didn't [$_{IP}$ you know [$_{NP}$ the book [$_{CP}$ that [$_{IP}$ they gave you t_j]]]]?

The Spanish sentences in (3), equivalent to those in (1), are grammatical for the same reasons as in English.

(3) a. ¿[$_{CP}$ Qué$_j$ [$_{IP}$ tiróv el niño tv t_j]]?
b. ¿[$_{CP}$ Qué$_j$ [$_{IP}$ tiróv el niño [$_{CP}$ t_j que [$_{IP}$ vive en la casa de al lado]] tvt_j]]?

In Spanish, however, (4a), the equivalent sentence to the ungrammatical (2a), is grammatical because IP is not a bounding node in this language, so the 'wh-element' can move across two IPs in a single step. (4b), equivalent to (2b), is also ungrammatical in Spanish because NP is a bounding node in this language. A 'wh-element' cannot be extracted from a complex NP, since doing so would involve crossing out of the embedded CP and the NP above it in one step, thereby violating subjacency.

(4) a. ¿[$_{CP}$ Qué libro$_j$ [$_{IP}$ no sabes [$_{CP}$ si [$_{IP}$ Pepe ha leído t_j]]]?
b. *¿[$_{CP}$ Qué$_j$ [$_{IP}$ no sabías [$_{NP}$ el hecho [$_{CP}$ que [$_{IP}$ te dieron t_j]]]]?

Previous Studies of Different Bounding Nodes in L2

Very few studies on the resetting of bounding nodes have been carried out (Johnson 1988, White 1985, 1988, Uziel 1991), and English has been the L2 in each case. One of the few studies that deal with Spanish is Johnson 1988.[1] She compared knowledge of Subjacency by Chinese speakers (Chinese lacks movement) and Spanish speakers

(Spanish has movement). Spanish speakers performed much better than Chinese. This was expected since in Chinese syntactic movement is not possible. However, Spanish speakers did not do as well as native speakers. This could be explained by the parametric difference between English in Spanish, that is, by the fact that they have different bounding nodes. Nevertheless, Johnson's conclusions are that the results do not show problems of this type. Spanish speakers seem to have the same bounding nodes as English speakers. They adopted the English parameter value. They had more problems with extractions from NPs, that are not allowed in any language. She concludes that these results are not predicted by any theory and cannot really account for these results and, although it might influence the results, problem-solving strategies are probably used too. She does not consider the possibility that the Spanish learners have actually reset the parameter.

Another study of this parametric difference between Spanish and English is White 1985. In this case, French subjects were also used in the experiment, since French has the same bounding nodes as Spanish (CP and NP). While Subjacency and bounding nodes were not the actual object of the test (the pro-drop parameter was) White included several sentences that violated Subjacency in English, but not in French or Spanish. The results were that the students of lower levels accepted them. This suggests that they are transferring from L1. The students of higher levels performed better and even accepted some sentences that were also accepted by native speakers but, in theory, were not grammatical, which may suggest that their judgements are similar to those of native speakers. She is not able to say whether these students went through a stage where IP (S) was not considered a bounding node. But she defends the importance of UG because all subjects were consistent, either they chose the L1 parameter value or the L2 value. UG is still operating.

White 1988 tested bounding nodes differences between English and French. Her subjects were three different groups of French speakers: two of adults and one of adolescents.[2] Both adult groups rejected violations of wh-islands. The results were not as good as for the extractions from NP. One group accepted a lot of the sentences that included violations of wh-islands. This suggests that they are still transferring from L1, but the fact that they still rejected a lot of sentences (especially one of the adult groups) also suggests that parameter resetting is possible. Even when their responses were not right in English, they always respected UG, since IP is not a bounding node in several languages. White also included sentences that

involved a 'that-trace' effect. They all accepted the grammatical sentences where the complementizer was absent, but they did not do that well on the sentences that exhibited a 'that-trace' effect. This cannot be transfer from L1 because French, like English, does not allow 'that-trace'. English native speakers also accepted sentences that contained the 'that-trace'. These results do not go against UG, since there are many languages, like Spanish or Dutch, that allow the 'that-trace'.

In conclusion, while Johnson 1988 does not think that UG gives a satisfactory explanation for the knowledge of bounding nodes by Spanish speakers, White 1985, 1988 supports the possibility of resetting this parameter and the importance of UG since her results are always within UG predictions. However, French and Spanish speakers do not perform like native speakers. Further research needs to be done to test for parameter resetting, especially in Spanish, since no one yet has worked on resetting bounding nodes in this language. This paper presents a pilot study on this topic.

3. Method

Subjects

The subjects for the experiment were 8 American graduate students in the Spanish Department of the University of Kansas. Some background information on them is given in Table 1.

	average	range
age at testing	24	22-28
years studying Spanish	11.4	7.5-25
age when they started	11.6	3-15

Table 1 Background information on subjects

All of them were highly proficient in Spanish. They had studied this language for an average of 11 years and had taken a lot of courses in Spanish in high school and college. They came from many different colleges and areas of the country, but their knowledge of Spanish was similar. They all started learning the language quite young and most of them had lived in a Spanish- speaking country for several months. Only one had been to Spain for only 10 days. Another one had lived in El Salvador for 8 years. The countries that the subjects had been to varied. Some of them were Spain, Mexico, Argentina, El Salvador, Guatemala or Honduras. One of them was three years old when she

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started, since she had lived in El Salvador as a child. The average age of the subjects when they began studying Spanish was 12 years old. The average age at testing of the subjects was 24. The youngest subject was 22 years old and the oldest 28 years old. Only three of them spoke other languages besides Spanish. Two of them spoke French (one was a French major) and the other one some Italian and Japanese. However, Spanish was not the only language they had knowledge of. They all had studied other languages. Half of them had studied French, Hebrew, Japanese, Italian, Chinese and German were other languages that they also had studied.

The control group consisted of 7 Spanish speakers that were graduate students in the Spanish Department of the University of Kansas. They all were from the same area of Spain, so no dialectal differences should be found in their results.

Materials

The materials used in the experiment were a syntax pretest and a grammaticality judgment task. The pretest consisted of three different tasks that included very similar structures to those used in the grammaticality judgment task to make sure that the subjects had an adequate knowledge of the structures being tested. The first one of these tasks was an exercise on relative clauses where they had to link sentences using a relative pronoun. There were six sentences in which the relative pronouns that had to be provided had the function of subject, direct object and indirect object. An example of each is given below:

(5) a. Mi novia vio una película. La película fue muy divertida.
My girlfriend saw a movie. The movie was very entertaining.

b. El cantante es simpático. Yo conocí al cantante en el bar.
The singer is nice. I met the singer in the bar.

c. Mi hermano vive en España. Yo le compré un regalo a mi hermano.
Mi brother lives in Spain. I (him) bought a present for my brother.

The second task involved wh-movement. There were six sentences in which a noun phrase was underlined. Taking into account these underlined noun phrases, subjects were asked to form appropriate questions. These NPs were subjects, direct objects or indirect objects. Several examples of these are:

(6) a. Antonio Banderas es el mejor actor del mundo.

Antonio Banderas is the best actor in the world.
b. Yo vi una película en el cine que me gustó mucho.
I saw a movie in the theatre that I liked a lot.
c. Le regalé un diamante a mi novia por su cumpleaños.
(him) (I)gave a diamond to my girlfriend for her birthday.

The last task was a translation of Spanish relative-clause sentences using similar structures to the ones used in the test : wh-questions, clefts and appositives. They involved extraction of subjects, direct objects or indirect objects. The following are examples of the three structures:

(7) a. Esta es la película que el chico que está en clase vio ayer.
This is the movie that the guy that is in class saw yesterday.
b. Mi hermano, a quien le compré un regalo, es simpático.
My brother, for whom (him) (I) bought a present, is nice.
c. ¿Sabes quién vio la película esta mañana?
Do you know who saw the movie this morning?

All the sentences used in this pretest were balanced for length and contained the same vocabulary that was used in the grammaticality judgment test.

The grammaticality judgment task consisted of 54 test sentences and 6 fillers. The test sentences included 21 sentences where a constituent crossed two nodes (CP and IP). These are grammatical in Spanish but not in English because in Spanish IP is not a bounding node. These 21 sentences consisted of 6 wh-questions, 6 cleft sentences and 9 appositives. Each one of these three structures included three sentences that involved extraction of a direct object and three, extraction of a subject. In the case of the appositives, three sentences were included in which there was an extraction of an indirect object.

(8) Wh-islands: questions

a. ¿Qué libro no sabías si tu novia leyó ayer por la noche?
What book didn't you know if your girlfriend read yesterday night?

b. ¿Quién no sabes si murió ayer por la noche?
Who don't you know if died yesterday night?

(9) Wh-islands: clefts

a. Este es el libro que no sabes si mi novia ha leído.
This is the book that you don't know if my girlfriend has read.

b. Este es el hombre que no sabes si murió ayer.

This is the man that you don't know if died yesterday.

(10) Wh-islands: appositives

a. Este libro, que creo que sabes a quién regalé, es mi favorito.
This book, that I think that you know for whom I bought, is my favourite.

b. Mi abuela, que no sé si murió, estaba muy enferma.
My gramdmother, that I don't know if died, was very sick.

c. Mi hermano, a quien me pregunto qué historias han contado, estaba preocupado.

The test also included 21 sentences that involved extractions out of an NP. These are ungrammatical in English and Spanish because two bounding nodes are crossed in both languages. These sentences also consisted of 6 wh-questions, 6 cleft sentences and 9 appositives. Each one of these three structures included three sentences that involved extraction of a direct object and three, extraction of a subject (in the appositives also three extractions of an indirect object).

(11) NP-extractions: questions

a.¿Qué libro conoces a mi novia que leyó ayer por la noche?
What book do you know my girlfriend that read yesterday night?

b. ¿Quién no sabes el libro que leyó ayer por la noche?
Who do you know the book that read yesterday night?

(12) NP-extractions: clefts

a. Este es el libro que conozco al hombre que leyó ayer por la noche.
This is the book that I know the man that read yesterday night.
b. Este es el hombre que sé el libro que leyó.
This is the man that I know the book that read.

(13) NP-extractions: appositives

a. Este libro, que creo que conoces al hombre que leyó, es mi favorito.
This book, that I think that you know the man that read, is my favourite.

b. El hombre, que creo que sabes el libro que leyó, es simpático.
The man, that I think that you know the book that read, is nice.

c. Mi novia, a quién sé las canciones que han cantado, estaba emocionada.
My girlfriend, to whom I know the songs that they have sung, was excited.

The other 12 sentences were related to the 'that-trace' that does not involve Subjacency but it is usually associated with it because it

involves problems in the government of a trace. Spanish requires the presence of the 'that-trace' ('que' in Spanish) while English does not allow the 'that-trace'. There were six sentences that contained 'que' ('that') and six that did not contain this complementizer. Three involved extraction of a subject and three of an object in each of these two structures.

(14) 'That- trace'
a.¿Qué crees que Pedro ha comprado para el cumpleaños de su novia?
What do you think that Pedro has bought for the birthday of his girlfriend?
b. ¿Quién crees que irá a la fiesta mañana por la noche?
Who do you think that will go to the party tomorrow night?

(15) Without 'that-trace'
a. ¿Qué crees Pedro ha comprado para el cumpleaños de su novia?
What do you think Pedro has bought for the birthday of his girlfriend?
b. ¿Quién crees irá a la fiesta mañana por la noche?
Who do you think will go to the party tomorrow night?

All the sentences were balanced for length within each structure and randomized so that a specific set of sentences did not influence the other ones. The same vocabulary was used in all the sentences. It was also very basic in order to avoid problems that were not related to the syntactic structures.

Procedure

The subjects were given the pretest and the grammaticality judgment test at the same time. They were allowed to bring it home and spend all the time they wanted on it. For the grammaticality judgment test they were asked to record a check mark for all the sentences that they thought that were grammatical and made sense, and an asterisk for all the sentences that did not make sense. They were asked not to consult any grammar or sources. They also were told not to worry about problems related to vocabulary or other things like, for instance, accent marks.

4. Results

All the subjects passed the pretest. They did not have any mistakes, which proves that they knew the structures to be tested pretty well. The overall results for the 60 sentences on the experimental task show that both groups, the control group and the L2 learners, performed above chance. The native speakers did better, they got

84.11% of the sentences right, while the American subjects got 70.48% right. Thus, the difference between those groups is not very important overall, but there are significant differences on specific structures.[3]

The percentages of correct answers for the wh-islands are given inTable 1. All these sentences are grammatical in Spanish but incorrect in English. There is a significant difference between the answers of the control group and the non-native speakers. The control group accepted most of these sentences (89.76%) while the subjects did not (37.49%).

	% control	% experimental
wh-islands overall	89.76	37.49
Questions	95.23	27.08
Object extractions	100	37.49
Subject extractions	90.47	16.66
Clefts	100	58.33
Object extractions	100	62.49
Subject extractions	100	54.16
Appositives	79.36	31.94
Direct Object extractions	90.47	37.49
Subject extractions	85.71	45.83
Indirect Object extractions	61.90	12.49

Table 2 Percentages correct for wh-islands

The results for the extractions out of NPs are shown in Table 3. All these sentences are ungrammatical in both languages. Surprisingly, the non-native speakers did better than the control group. Both groups rejected most sentences although there is an important difference. The control group rejected only 76.86% of the sentences while the subjects rejected 95.83%.

	% control	% experimental
NP-extractions overall	76.86	95.83
Questions	100	100
Object extractions	100	100
Subject extractions	100	100
Clefts	85.71	100

Object extractions	85.71	100
Subject extractions	85.71	100
Appositives	55.55	90.27
Direct Object extractions	95.23	95.83
Subject extractions	14.28	83.33
Indirect Object extractions	57.14	91.66

Table 3 Percentages correct for NP-extractions

The results for the 'that-trace' sentences are given in Table 4. The sentences that included 'que' ('that') are correct in Spanish but wrong in English and the ones that did not include the 'que' ('that') are wrong in Spanish but correct in English. The overall results for these sentences were similar, although Spanish speakers did better. They accepted all the sentences with the *that* complementizer present and only two also accepted the ones that did not have 'que.' The American subjects were more inconsistent. They accepted the *that* complementizer in only 77.08% of the cases and they rejected the sentences without 'que' in 79.16 % of the cases.

	% control	% experimental
'That'-trace sentences:overall	85.71	78.12
'That' complementizer	100	77,08
Object extraction	100	91.66
Subject extraction	100	66.66
No complementizer	71.42	79.16
Object extraction	71.42	87.49
Subject extraction	71.42	70.83

Table 4 Percentages correct for 'that-trace' sentences

5. Discussion

The most interesting results are those related to the parametric difference between Spanish and English, that is, those related to the 21 'wh-islands' where a constituent crosses two nodes (IP and CP) at the same time. These sentences are grammatical in Spanish since IP is not a bounding node in this language. The control group supports this.[4] They accepted most of the sentences, especially the questions and clefts. The American subjects performed poorly on the 'wh-islands', below chance. They only accepted them in 37.49% of the cases. Thus, the

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difference between their responses and those of the control group is very important. This suggests that they are still transferring from the L1 since they are treating IP as a bounding node. Their responses are still within UG because they are consistent with a UG possibility, the one they have in their own language. Although the subjects were highly proficient in Spanish and had studied it for a long time, they do not seem to have reset the parameter. The age variable did not make any difference because the two people that started learning Spanish really early did even worse than other subjects that started later (one of them rejected all the sentences of this type).

Although these results argue against the possibility of resetting parameters, some observations should be made. Two subjects performed much better (76.19% and 66.66% right overall). And the subjects as a group did better on the clefts, they performed a bit above chance (58.33%), suggesting that some parameter resetting has taken place. The difference found between clefts and questions is probably due to the fact that clefts tend to sound more natural than questions. In addition, the fact that the questions were long and not very common in Spanish may have caused subjects to reject more sentences of this type. The subjects did really poorly on the appositives that involved indirect object extraction (only 12.49% right). These also caused some problems for the native speakers. Spanish usually requires the presence of the indirect object pronoun together with the indirect object noun or prepositional phrase. In the sentences that were used in the test, the pronouns were not included so that the sentences were simpler and the extraction of the indirect object more obvious. It is possible that some sentences did not sound good because of the absence of the pronoun.[5]

In any case, the resetting of this parameter seems to be quite hard. One of the reasons for this is the fact that there is not a lot of positive evidence because these sentences are not very common in Spanish. Usually simpler and shorter sentences are used in everyday speech, so it has to be difficult to accept the grammaticality of sentences like this or to notice the difference in bounding nodes.

Regarding the extractions out of NPs, the difference is not that significant. Both the native speakers and the Americans rejected most sentences. The Americans were very consistent (95.83% of rejections). They seem to be sure about the impossibility of crossing an NP and a CP at the same time. This is something that UG does not allow, so all subjects respect UG. The control group accepted more of these

sentences (76.86% of rejections). They rejected all the questions and almost all the clefts. The problem is that they accepted most of the appositives that involve subject extraction from NPs and above 50% of the appositives that involve indirect object extraction out of NPs. This is not allowed by UG. It is hard to determine why they responded like this. The sentences are similar to the wh-islands, so it is possible that they associated them with the other sentences that were grammatical. In the case of the subject extractions, since Spanish is a pro-drop language, they may not have realized where the NP was extracted from. Similarly, in the case of the indirect object extractions, because prepositional phrases can be placed in almost every position in Spanish, it may have been hard for them to determine the underlying position of the constituents.

Another interesting observation is that, if the answers of the Americans for 'wh-islands' and 'NP-extractions' are compared, there is still a contrast. They did not reject all the 'wh-islands' but they rejected almost all the sentences that contained 'NP-extractions'. In English both are equally bad. This difference suggests that some parameter resetting might have taken place.

Regarding the 'that'-trace structures, the American subjects performed well but a bit worse than the native speakers.[6] This suggests that parameter resetting is possible in this case. The Americans rejected some sentences with 'that', especially when there was extraction of subject. They rejected most sentences without 'que' but they also accepted some, especially those in which there was extraction of subject. They still transferred some of the properties from the L1; in some cases they did not like the 'that' since English does not allow it. However, their performance was good, not very much different from native speaker's performance, although a bit more inconsistent.

Some problems found in the experiment were related to the fact that, in some sentences (the appositives that included an indirect object), the indirect object pronoun was left out, when it is normally used in Spanish. This caused confusion for all subjects, including the control group. Another problem was that almost all the sentences used in the experiment were bad in English. This might encourage a negative response to all the sentences (some subjects rejected almost all sentences). A future experiment should include more sentences that are parallel to the 'wh-islands' or 'NP-extractions' but are grammatical in English (sentences that do not cross two bounding nodes for English at the same time). Also, more subjects should be used in the

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experiment in order to obtain results that are more reliable, and so that statistical tests can be performed.

6. Conclusion

English speakers do not seem to be able to reset the parametric difference involving bounding nodes. They did poorly on the sentences in which a constituent crossed an IP and CP. This suggests that they are transferring from the L1. The difficulty has to do with lack of positive evidence, since these structures are hardly used in Spanish. However, a contrast was found between their responses to the 'wh-islands' and the 'NP-extractions'. They accepted more sentences from the former group than from the latter group, while all should be equally bad in English. This suggests that some parameter resetting might be taking place. Age did not make any difference in the results. Their responses were within UG predictions even when they were wrong so, whether or not parameter resetting is possible, UG is still operating.

NOTES

[1] Bounding nodes were not the actual object of her study (the critical period hypothesis was), although she does discuss this issue briefly. Her conclusions are quite vague.

[2] The latter group scored around chance level on the grammatical sentences, so they were not taken into account for the study.

[3] All of them accepted the fillers that were right. This also shows that their proficiency in Spanish was good.

[4] Only one of the native speakers did not accept a couple of questions that involved the extraction of the subject. The reason for this response is not clear.

[5] This explanation is supported by the fact that some subjects corrected the sentences and included an indirect object pronoun.

6 Only two Spanish speakers of the control group accepted all the sentences without 'que' that, in theory, are not grammatical in Spanish. A possible answer to this is that they have been in contact with English for a long time and, since they know that the omission of 'that' is possible in English, they accept it in Spanish, although they might not use it.

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APPENDIX

Sentence battery

<u>Wh-islands (questions)</u>
objects
¿Qué libro no sabes si mi novia leyó ayer por la noche?
¿Qué canción me preguntaste si había oído en la radio?
¿Qué película me preguntaste si había visto la semana pasada?

subjects
¿Quién me preguntaste si había estudiado conmigo en la escuela?
¿Quién no sabes si murió ayer por la noche?
¿Quién no sabes si fue a México el verano pasado?

<u>Wh islands (clefts)</u>
objects
Esta es la película que no sabes si había visto ayer.

Este es el libro que no sabes si mi novia ha leído.
Esta es la canción que me preguntaste si había oído ayer.

subjects
Este es el hombre que no sabes si murió ayer por la noche.
Esta es la persona que me preguntaste si había estudiado conmigo.
Este es el viajero que no sabes si fue a México el año pasado.

Wh islands (appositives)
direct objects
Ese libro, que creo que sabes a quién regalé, es mi favorito.
Esa canción, que creo que sabes a quién canté, es hermosa.
Esa película, que creo que sabes a quién recomendé, es divertida.

subjects
Mi abuela, que no sé si murió, estaba muy enferma.
El viajero, que no sabes si fue a México, está aquí.
La persona, que no sabes si ha estudiado contigo, llamó por teléfono.

indirect objects
Mi hermano, a quien me pregunto qué historias han contado, estaba preocupado.
Mi novia, a quien me pregunto qué canción han cantado, estaba emocionada.
Mi amigo, a quien me pregunto qué libros han regalado, estaba alegre.

NP-extractions (questions)
objects
¿Qué libro conoces a mi novia que leyó ayer por la noche?
¿Qué canción conoces al hombre que cantó hoy por la mañana?
¿Qué película conoces a mi amigo que vio la semana pasada?

subjects
¿Quién sabes el libro que leyó ayer por la noche?
¿Quién sabes la película que vio hoy por la mañana?
¿Quién sabes la canción que cantó la semana pasada?

NP-extractions (clefts)
objects
Este es el libro que conozco al hombre que leyó ayer por la noche.
Esta es la película que conozco a la señora que vio la semana pasada.
Esta es la novia que sé la película que vio la semana pasada.

subjects
Este es el hombre que sé el libro que leyó ayer por la noche.
Este es el cantante que sé la canción que cantó esta mañana.
Esta es la canción que conozco al cantante que cantó hoy por la mañana.

NP-extractions (appositives)
direct objects
Esa canción, que creo que conoces al cantante que cantó, es hermosa.
Ese libro, que creo que conoces al hombre que leyó, es mi favorito.
Esa película, que creo que conoces al chico que vio, es divertida.

subjects
Mi amigo, que creo que sabes la película que vio, está alegre.
El cantante, que creo que sabes la canción que cantó, es bueno.
El hombre, que creo que sabes el libro que leyó, es simpático.

indirect objects
Mi novia, a quien sé las canciones que han cantado, estaba emocionada.
Mi amigo, a quien sé los libros que han regalado, estaba alegre.
Mi hermano, a quien sé las historias que han contado, estaba preocupado.

'That'-trace
objects
¿Qué crees que ha comprado Pedro para el cumpleaños de su novia?
¿Qué crees que vio tu novia en el cine la semana pasada?
¿Qué crees que le dijo tu madre a tu hermano ayer por la noche?

subjects
¿Quién crees que irá a la fiesta mañana por lanoche?
¿Quién crees que comprará la casa de mis abuelos el año que viene?
¿Quién crees que cantará una canción en la fiesta mañana por la noche?

Non 'that'-trace
objects
¿Qué crees ha comprado Pedro para el cumpleaños de su novia?
¿Qué crees vio tu novia en el cine la semana pasada?
¿Qué crees le dijo tu madre a tu hermano ayer por la noche?

subjects
¿Quién crees irá a la fiesta mañana por la noche?

¿Quién crees comprará la casa de mis abuelos el año que viene?
¿Quién crees cantará una canción en la fiesta mañana por la noche?

<u>Fillers</u>
Esta es la película que el chico que está en clase vio ayer.
La canción que el cantante cantó en el bar es hermosa.
Ese es el libro que el hombre que trabaja en la librería me recomendó.
Este es el hombre que vino a la fiesta que dio mi novia.
¿Qué libro te recomendó el hombre que trabaja en la librería?
La película que la chica que trabaja en Walmart vio es muy buena.